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October 6, 2000

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10/06/00

BOX PATENT APPLICATION
Assistant Commissioner for Patents
Washington, D.C. 20231

Re: Application of Hidehiro MATSUMOTO
PORTABLE TERMINAL SYSTEM, PORTABLE TERMINAL, METHOD OF
CONTROLLING PORTABLE TERMINAL, AND STORAGE MEDIUM
STORING PROGRAM FOR CONTROLLING PORTABLE TERMINAL
Our Ref. Q61026

Dear Sir:

Attached hereto is the application identified above including 20 sheets of the specification and claims, 7 sheets of formal drawings, the executed Assignment and PTO 1595 form, and the executed Declaration and Power of Attorney. Also enclosed is an Information Disclosure Statement with reference and PTO form 1449, and a Declaration of Tommy Sanders with attachment.

The Government filing fee is calculated as follows:

Total claims	21	-	20	=	1	x	\$18.00	=	\$18.00
Independent claims	4	-	3	=	1	x	\$80.00	=	\$80.00
Base Fee									\$710.00

TOTAL FILING FEE	\$808.00
Recordation of Assignment	\$40.00
TOTAL FEE	<u>\$848.00</u>

Checks for the statutory filing fee of \$808.00 and Assignment recordation fee of \$40.00 are attached. You are also directed and authorized to charge or credit any difference or overpayment to Deposit Account No. 19-4880. The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§ 1.16 and 1.17 and any petitions for extension of time under 37 C.F.R. § 1.136 which may be required during the entire pendency of the application to Deposit Account No. 19-4880. A duplicate copy of this transmittal letter is attached.

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC

Assistant Commissioner of Patents
October 6, 2000
Page 2

Priority is claimed from October 6, 1999 based on Japanese Application No. 284981/1999. The priority document with attached Declaration of Tommy Sanders is enclosed herewith.

Respectfully submitted,
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
APPLICATION FOR LETTERS PATENT

Title: PORTABLE TERMINAL SYSTEM, PORTABLE TERMINAL,
METHOD OF CONTROLLING PORTABLE TERMINAL,
AND STORAGE MEDIUM STORING PROGRAM
FOR CONTROLLING PORTABLE TERMINAL

INVENTOR(S): HIDEHIRO MATSUMOTO

PORTABLE TERMINAL SYSTEM, PORTABLE TERMINAL, METHOD
OF CONTROLLING PORTABLE TERMINAL, AND STORAGE
MEDIUM STORING PROGRAM FOR CONTROLLING PORTABLE
TERMINAL

BACKGROUND OF THE INVENTION

The present invention relates to a portable terminal system, a portable terminal used in the portable terminal system, a method of controlling the portable terminal, and a storage medium storing a program for controlling the portable terminal. In particular, the present invention relates to a portable terminal system which is capable of using information from an information source server connected to the internet, a portable terminal used in such portable terminal system, a method of controlling the portable terminal, and a storage medium storing a program for controlling the portable terminal.

Description of the Related Art

In recent years, information is commonly provided through the internet by hyper text including multimedia data called WWW (World Wide Web). Generally, access to information on the WWW is made by an application of a WWW browser which operates on personal computers. The WWW browser is a software module for perusing information on the WWW. In the following, the WWW browser will be simply referred to as "browser". Besides personal computers, there are other electrical appliances such as a television set that loads a browser, and information on the WWW can be accessed through such appliances as well.

Also known is a portable terminal with a telephone function having a browser loaded. In accordance with Japanese Patent Application Laid-Open Publication No. 10-322478, WWW information is transmitted from a WWW server unit to a portable terminal where the WWW information is made available for use. In addition, in this

portable terminal, links and text of the WWW information are separated, and only the links are organized for being read out, thus enabling a hyper link retrieval by speech.

In case when a user attempts to use information from an
5 information source server connected to the internet, through a portable terminal such as a portable telephone, etc., the operation method will be different depending on the contents of the transmitted information. Therefore, it has been a problem that there are some difficulties in trying
10 to gain access to the desired information. On the other hand, a unified operation method has been proposed to solve such problem, although it is not progressing, because information providers are concerned about the fact that such differences in operability are factors for the users to determine the quality of the service.

Furthermore, in representing the operation method, it should be
15 more effective if voices, moving images, static images, etc. are used in addition to a display by characters, depending on the contents of information. It should be especially useful for physically handicapped people when they are provided with such options for learning the operation methods.

20

SUMMARY OF THE INVENTION

The present invention has been achieved in order to solve such problems in the prior art, and it is an object of the present invention to provide a portable terminal system and a portable terminal for use in this
25 system, which require simple operation. Furthermore, another object of the present invention is to provide a portable terminal system, a portable terminal for used in this system, a method of controlling the portable terminal, and a storage medium storing a program for controlling the portable terminal, which can be easily operated particularly by people
30 who have weak eyesight.

In accordance with the present invention, there is provided a portable terminal system comprising: a server storing text contents which are supposed to be displayed at a display section of a portable terminal, and help contents which show a method of utilizing said text
5 contents; and a portable terminal including a text browser provided for use in perusing the text contents stored in said server, and a help browser provided for use in perusing the help contents also stored in said server.

In accordance with the portable terminal system of the present invention, the portable terminal includes a text browser provided for use
10 in perusing text contents which are supposed to be displayed at a display section of the portable terminal, and a help browser provided for use in perusing help contents which show a method of utilizing said text contents.

In accordance with the portable terminal system of the present
15 invention, the portable terminal further includes a judging means for judging whether a message inputted from outside belongs to a text message or a help message, and activates either said text browser or said help browser in accordance with a result of judgement by the judging means.

20 In accordance with the portable terminal system of the present invention, the help browser outputs the help contents as text, voice, static images, moving images, or any combination of such representation formats.

In accordance with the portable terminal system of the present
25 invention, the portable terminal further includes a plurality of switch keys for use in operations for using the text contents, and a switch-key controlling means for setting each of said plurality of switch keys to either an effective state or an ineffective state depending on the contents of the help contents.

30 In accordance with the portable terminal system of the present

invention, in case when said switch keys are set to the effective state, said switch-key controlling means lights up light emitting sections corresponding to the switch keys being set to the effective state.

In accordance with the portable terminal system of the present invention, in case when said switch keys are set to the effective state, said switch-key controlling means vibrates operation buttons for those switch keys which are being set to the effective state.

In accordance with the present invention, there is provided a portable terminal comprising: a text browser provided for use in perusing text contents which are supposed to be displayed at a display section of the portable terminal; and a help browser provided for use in perusing help contents which show a method of utilizing said text contents.

In accordance with the present invention, the portable terminal further comprises: a judging means for judging whether a message inputted from outside belongs to a text message or a help message, enabling the portable terminal to activate either said text browser or said help browser in accordance with a result of judgment by said judging means.

In accordance with the portable terminal of the present invention, the help browser outputs said help contents as text, voice, static images, moving images, or any combination of such representation formats.

In accordance with the present invention, the portable terminal further comprises a plurality of switch keys for use in operations for using said text contents; and a switch-key controlling means for setting each of said plurality of switch keys to either an effective state or an ineffective state depending on the contents of said help contents.

In accordance with the portable terminal of the present invention, in case when said switch keys are set to the effective state, said switch-key controlling means lights up light emitting sections corresponding to

the switch keys being set to the effective state.

In accordance with the portable terminal of the present invention, in case when said switch keys are set to the effective state, said switch-key controlling means vibrates operation buttons for those switch keys
5 which are being set to the effective state.

In accordance with the present invention, there is provided a method of controlling a portable terminal comprising the steps of: judging whether a message inputted from outside belongs to a text message or a help message; and activating either a text browser provided
10 for use in perusing text contents which are supposed to be displayed at a display section of the portable terminal, or a help browser provided for use in perusing help contents which show a method of utilizing said text contents, in accordance with a result of judgment by said step of judging.

In accordance with the present invention, there is provided a storage medium storing a program for controlling a portable terminal, wherein said program comprises the steps of: judging whether a message inputted from outside belongs to a text message or a help message; and activating either a text browser provided for use in perusing text contents which are supposed to be displayed at a display
15 section of the portable terminal, or a help browser provided for use in perusing help contents which show a method of utilizing said text contents, in accordance with a result of judgment by said step of judging.
20

Therefore, in the system of the present invention, in providing (displaying) information from an information source server connected to
25 the internet, by a browser contained in a portable terminal (to be referred to as "radio client" in the following) such as a portable cellular phone, etc., the contents of information stored in the information source server (to be referred to as "contents" in the following) are divided into information on operation procedures for the user (to be referred to as "help contents" in
30 the following), and information on the other things (to be referred to as

“text contents” in the following). Furthermore, the portable terminal being a radio client contains functions of a text browser and a help browser for perusing the text contents and the help contents, respectively. In addition, in response to a process by the help browser, the radio client
5 is capable of displaying the operation procedures on its screen, showing and designating key buttons necessary for operation, responding to an operation through voice, and showing the operation procedures on the screen by moving images or static images, and graphics.

10 BRIEF DESCRIPTION OF THE DRAWINGS

The above and further objects, and the novel features of the present invention will more fully appear from the following detailed description when the same is read in connection with the accompanying drawings, in which:

15 Fig. 1 is a block diagram showing a configuration of a portable terminal system in one embodiment of the present invention;

Fig. 2 is a block diagram showing an example of an internal structure of a portable terminal for use in the portable terminal system shown in Fig. 1;

20 Fig. 3 is a view showing an appearance of the portable terminal
shown in Fig. 2;

Fig. 4 is a flow chart showing an operation of the portable terminal shown in Fig. 2;

Fig. 5 is a view showing an example of a display on a display screen of the portable terminal in case when help contents include character information;

Fig. 6A is a view showing an example of a display on a display screen of the portable terminal in case when the help contents include voice information;

Fig. 6B is another view showing the example of a display on a

display screen of the portable terminal in case when the help contents include voice information; and

Fig. 7 is a view showing an example of a display on a display screen of the portable terminal in case when the help contents include static images, moving images, etc., besides character information.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings, a description of a preferred embodiment of the present invention will be given in detail. In the 10 drawings, the same number is given to the same constituents.

With reference to Fig. 1, one embodiment of a portable terminal system in accordance with the present invention will be described.

In Fig. 1, an information source server 9 stores text contents 7 and help contents 8. A radio client 1 comprises a text browser 2, and a 15 help browser 3. The text browser 2 analyzes and displays the text contents 7, and executes an input process. The text browser 3 analyzes and displays the text contents 8, and executes an input process. The radio client 1 is connected to a radio gateway server 5 through a radio communication network 4, and the radio gateway server 5 is further 20 connected to the information source server 9 through a wire network 6 such as the internet, etc.

The radio gateway server 5 mediates between the radio client 1 and the information source server 9, passing data from the information source server 9 to the radio client 1. The radio gateway server 5 also 25 monitors the radio client 1 and executes user authentication. The information source server 9 provides information written in a language such as HTML (hyper text markup language), XML (extended markup language), WML (wireless markup language), compact HTML, etc., in response to a request by the client 1.

30 In order to provide information in an effective way, the

information provider finds some relevancy between the text contents 7 and the help contents 8. This certain relevancy is called a "link". At this time, a representation format (i.e. character information, voice information, moving image information, static image information, 5 graphics information, etc., or any combination of such types of information representation, used in reproducing the help contents in the radio client 1 by a browser) and an input format (i.e. designation of input keys, etc.) of the help contents 8 are inserted to the help contents 8, and thus the operation, the representation format, and the input method are 10 designated by the information provider.

In Fig. 2, an example of an internal structure of the radio client 1 is shown. The radio client 1 executes communications through the radio communication network 4 and a radio communication port 10. The radio communication port 10 executes transmission/reception 15 between a text browser and a help browser 3, which are contained in the radio client 1.

As illustrated in Fig. 2, the text browser 2 comprises a text analyzing section 15, a display processor 11, and an input processor 12. The text analyzing section 15 analyzes data received from the radio 20 gateway server 5, and executes appropriate process in response to the analyzed data. The display processor 11 conducts a display process to display the analyzed data at a display output device 17 such as a liquid crystal display device. The input processor 12 executes an input process for the input device 18 such as an input pad.

On the other hand, the help browser 3 depends mainly on an 25 input method of the radio client 1. For instance, as shown in Fig. 3, a portable telephone terminal in particular is provided with some switch-key buttons including ten keys 21, arrow keys 22, soft keys 24, a decision key 23, etc. In this case, the ten keys 21 are used in inputting telephone 30 numbers, etc. The up arrow, down arrow, right arrow, and left arrow

keys 22 are pressed when moving a cursor, which is a help display on a screen 25 for stimulating inputs. The soft keys 24 are used in designating a use under particular contents on the screen 25. The decision key 23 is used in deciding an execution of a designated process.

- 5 All these switch-key buttons in Fig. 3 correspond to key buttons 20 in Fig. 2. Furthermore, as shown in Fig. 2, the help browser 3 is provided with an output device 19 which is capable of emitting light beneath the key buttons, etc., using a light emitting diode (LED), complying with particular contents and user's status, thus attracting the user's attention.

10 As shown in Fig. 2, the help browser 3 is provided with a help analyzing section 16, a display processor 13, and an input processor 14. The help analyzing section 16 analyzes data received from the radio gateway server 5, and executes appropriate process in response to the analyzed data. The display processor 13 conducts a display process.

15 The input processor 14 executes an input process. The text analyzing section 15 and the help analyzing section 16 can execute the same kind of process, although in this case, they are indicated as different functions for better describing the structure of the present embodiment.

Fig. 3 illustrates an example in which the present invention is applied to a radio client 1 being a portable telephone terminal. The screen 25 in Fig. 3 is a combination of the input device 18 and the output device 17 shown in Fig. 2, and all kinds of inputs can be executed using the parts displayed on the screen.

Now the operation of the system based on the above-described structure will be described with reference to a flow chart in Fig. 4.

Referring to Fig. 4, first, when certain contents are provided to the radio client 1 from the information source server 9, the contents go through a process for received message at the radio communication port 10 (step A1). Here, the text browser 2 and the help browser 1 analyzes 30 the messages (description language group including XML, HTML and

WML containing a tag) contained in the received contents, and the contents including the messages.

When the input message belongs to text contents, it is processed by the text browser (step A2 → step A3). On the other hand, when the 5 input message belongs to help contents, the help analyzing section 16 analyzes to decide the type of message output for the input message (step A2 → step A4).

As a result of such type judgement, when it is determined that the help contents include character information, a help process by text is 10 executed (step A4 → step A5). In this case, the display will be as shown in Fig. 5, and the input operation will be limited to particular keys corresponding to which LEDs, etc. are internally provided to be lighted up. For example, in case of using only the right arrow and left arrow keys 22, and the upper right soft key 24, the internally provided LEDs, etc. 15 corresponding to those keys are lighted up to indicate that only the key inputs by those keys can be accepted. In other words, only those keys are set available for valid key inputs. In Fig. 5, those limited keys are illustrated in reversed black and white. In this particular example, among those keys, the right arrow and left arrow keys 22 correspond to 20 ‘OK’ and ‘Cancel’ indications on the screen 25, respectively, and one of the soft keys 24 (i.e. the upper right key) is associated with the operation for redrafting the help display.

In Fig. 5, a menu of an “On Line Help” is displayed on the screen 25. In this example, the menu of the “On Line Help” includes “How to 25 play”, “Current status”, and “Top winners”, and those menu items are given numbers 1, 2 and 3, respectively. When one of those numbers is inputted through a key-input, the corresponding menu item is executed.

On the other hand, when the help contents are determined as including voice information, as a result of the type judgement of step 4 in 30 the flow chart of Fig. 4, then a help process by voice is executed (step A4

→ step A6). In this case, as illustrated in Fig. 6A, “Voice messages” will be displayed on the screen 25 to indicate that the output method for the help contents will be a voice output. In this particular example, the operation of reading out the help contents through voice when redrafting 5 the help display is assigned to one of the soft keys 24 (i.e. the upper right key). Consequently, the user can confirm the help contents through voice even when the user is under the circumstances where the display screen is invisible. The illustration shown in Fig. 6B indicates that the voice is outputted from a speaker 26 provided to the terminal.

10 In this case also, the input operation is limited to particular keys only, and LEDs, etc., internally provided corresponding to those keys are lighted up. In Fig. 6A, those limited keys are illustrated in reversed black and white.

Furthermore, when the help contents are determined as 15 including information of static images, moving images, graphics, animations, etc., besides character information, then a help process by moving images, static images, etc. is executed (step A4 → step A7). In this case, as shown in Fig. 7, there will be no “OK” and “Cancel” indications on the screen 25 as in the cases of Fig. 5, Fig. 6A and Fig. 6B, 20 but plane figures (e.g. triangles pointing right and left) indicating “rewind”, “replay”, and “fast forward” are displayed instead. The right arrow and left arrow keys 22 are associated with “fast forward” and “rewind” operations, respectively, and the operation key 23 is associated with a “replay” operation. In this case, when voice indication is included, 25 the help contents can be confirmed through voice by pressing the soft key 24, as in the case explained with reference to Fig. 6A and Fig. 6B. Therefore, the help contents can be confirmed even under the circumstances where the display screen is invisible.

In this case also, the input operation is limited to particular keys 30 only, and LEDs, etc., internally provided corresponding to those keys are

lighted up. In Fig. 6A, those limited keys are illustrated in reversed black and white.

As described above, the control method described with reference to Fig. 4 is applied to the system of the present invention, and the portable terminal is controlled by this control method. This control method includes a judging step for judging whether the message inputted from outside is a text message or a help message, and a browser activating step for activating the text browser or the help browser. The text browser is provided for perusing text contents which are supposed to be displayed on a display section of the portable terminal in response to the result of judgement at the judging step. The help browser is provided for perusing help contents introducing a method of utilizing the text contents. In the browser activating step, the help contents are outputted by text, voice, static images, or moving images.

With respect to the above-described portable terminal, although the help contents are used in simplifying the operation for the user, it is also possible to set the help contents for advertisement and publicity, which enables the user to become familiar with the services provided thorough commercial contents beforehand. For example, one service could be a provision of pay contents which is charged from the point a certain key designated by the help contents is pressed.

Consequently, in accordance with the present invention, by using the help contents and the corresponding help browser, certain operation methods that have not been able to be introduced to the user by the conventional text contents alone, become available. For instance, it is possible to designate only certain keys corresponding to certain contents for use, and set the key operations by other keys to become ineffective. In this way, the operations by the user can be simplified and false operations can be prevented at the same time.

Furthermore, in accordance with the present invention, not only

character information but also multi-media information including voice, static pictures, moving pictures, graphics, animations, etc. can be used, which are applicable for use as a manual at a factory site, for use in an equipment maintenance, for use in a guide to a certain place, and so forth.

In addition, in accordance with the present invention, even a person having a trouble with eyesight can learn the operation method through hearing voice messages, and can execute the operation just like a non-handicapped person by feeling vibrations from the key buttons. In this case, a vibrator should be provided inside the portable terminal corresponding to each key button.

It is also obvious that the above-described control operation for the portable terminal can be executed when a storage medium storing a program for executing the process described with reference to Fig. 4 is provided to control each part illustrated in Fig. 2. Although it is not shown in Fig. 2, all kinds of storage mediums such as a semiconductor memory, magnetic disc device, etc. can be used for such storage medium.

Furthermore, it is also obvious that the above-described operation can be executed in a portable type computer, etc. by a program stored in the above-described storage medium. For this storage medium, for example, it is possible to use a semiconductor memory, a magnetic disc device, and other kinds of storage medium.

As described above, in accordance with the present invention, by using the help contents and the corresponding help browser, certain operation methods that have not been able to be introduced to the user by the conventional text contents alone, become available. For example, it is possible to designate only certain keys corresponding to certain contents for use and set the key operations by other keys to become ineffective. Thus, the operations by the user can be simplified and false operations can be prevented at the same time. This should be noted as

one unique effect of the present invention.

Another effect of the present invention is that not only character information but also multi-media information including voice, static pictures, moving pictures, graphics, animations, etc. can be used, which are applicable for use as a manual at a factory site, for use in an equipment maintenance, for use in a guide to a certain place, and so forth.

Furthermore, another effect of the present invention is that even a person having a trouble with eyesight can learn the operation methods through hearing voice messages, and can execute the operation just like a non-handicapped person by feeling vibrations from the key buttons. In this case, a vibrator should be provided inside the portable terminal corresponding to each key button.

While the preferred embodiment of the invention has been described using specific terms, such description is for illustrative purposes only, and it is to be understood that changes and variations may be made without departing from the spirit or the scope of the following claims.

WHAT IS CLAIMED IS:

1. A portable terminal system comprising:
a server storing text contents which are supposed to be displayed at a display section of a portable terminal, and help contents which show a method of utilizing said text contents; and
5 a portable terminal including a text browser provided for use in perusing the text contents stored in said server, and a help browser provided for use in perusing the help contents also stored in said server.

2. A portable terminal system as claimed in claim 1 wherein;
said portable terminal includes a text browser provided for use in perusing text contents which are supposed to be displayed at a display section of the portable terminal, and a help browser provided for use in
5 perusing help contents which show a method of utilizing said text contents.

3. A portable terminal system as claimed in claim 2 wherein;
said portable terminal further includes a judging means for judging whether a message inputted from outside belongs to a text message or a help message, and activates either said text browser or said
5 help browser in accordance with a result of judgement by the judging means.

4. A portable terminal system as claimed in claim 3 wherein;
said help browser outputs said help contents as text, voice, static images, moving images, or any combination of such representation formats.

5. A portable terminal system as claimed in claim 2 wherein;
said portable terminal further includes a plurality of switch keys

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JULY 1998

for use in operations for using said text contents, and a switch-key controlling means for setting each of said plurality of switch keys to either an effective state or an ineffective state depending on the contents of said help contents.

6. A portable terminal system as claimed in claim 3 wherein;
said portable terminal further includes a plurality of switch keys for use in operations for using said text contents, and a switch-key controlling means for setting each of said plurality of switch keys to either an effective state or an ineffective state depending on the contents of said help contents.

7. A portable terminal system as claimed in claim 4 wherein;
said portable terminal further includes a plurality of switch keys for use in operations for using said text contents, and a switch-key controlling means for setting each of said plurality of switch keys to either an effective state or an ineffective state depending on the contents of said help contents.

8. A portable terminal system as claimed in claim 7 wherein;
in case when said switch keys are set to the effective state, said switch-key controlling means lights up light emitting sections corresponding to the switch keys being set to the effective state.

9. A portable terminal system as claimed in claim 7 wherein;
in case when said switch keys are set to the effective state, said switch-key controlling means vibrates operation buttons for those switch keys which are being set to the effective state.

10. A portable terminal comprising:

a text browser provided for use in perusing text contents which are supposed to be displayed at a display section of the portable terminal; and

- 5 a help browser provided for use in perusing help contents which show a method of utilizing said text contents

11. A portable terminal as claimed in claim 10 further comprising:

a judging means for judging whether a message inputted from outside belongs to a text message or a help message, enabling the

- 5 portable terminal to activate either said text browser or said help browser in accordance with a result of judgment by said judging means.

12. A portable terminal as claimed in claim 11 wherein;

said help browser outputs said help contents as text, voice, static images, moving images, or any combination of such representation formats.

13. A portable terminal as claimed in claim 10 further comprising:

a plurality of switch keys for use in operations for using said text contents; and

- 5 a switch-key controlling means for setting each of said plurality of switch keys to either an effective state or an ineffective state depending on the contents of said help contents.

14. A portable terminal as claimed in claim 11 further comprising:

a plurality of switch keys for use in operations for using said text contents; and

5 a switch-key controlling means for setting each of said plurality of switch keys to either an effective state or an ineffective state depending on the contents of said help contents.

15. A portable terminal as claimed in claim 12 further comprising:

 a plurality of switch keys for use in operations for using said text contents; and

5 a switch-key controlling means for setting each of said plurality of switch keys to either an effective state or an ineffective state depending on the contents of said help contents.

16. A portable terminal as claimed in claim 15 wherein; in case when said switch keys are set to the effective state, said switch-key controlling means lights up light emitting sections corresponding to the switch keys being set to the effective state.

17. A portable terminal as claimed in claim 15 wherein; in case when said switch keys are set to the effective state, said switch-key controlling means vibrates operation buttons for those switch keys which are being set to the effective state.

18. A method of controlling a portable terminal comprising the steps of:

 judging whether a message inputted from outside belongs to a text message or a help message; and

5 activating either a text browser provided for use in perusing text contents which are supposed to be displayed at a display section of the portable terminal, or a help browser provided for use in perusing help contents which show a method of utilizing said text contents, in

accordance with a result of judgment by said step of judging.

19. A method of controlling a portable terminal as claimed in claim 18 wherein;

in said step of activating a text browser or a help browser, said help contents are outputted as text, voice, static images, moving images, 5 or any combination of such representation formats.

20. A storage medium storing a program for controlling a portable terminal, said program comprising the steps of:

judging whether a message inputted from outside belongs to a text message or a help message; and

5 activating either a text browser provided for use in perusing text contents which are supposed to be displayed at a display section of the portable terminal, or a help browser provided for use in perusing help contents which show a method of utilizing said text contents, in accordance with a result of judgment by said step of judging.

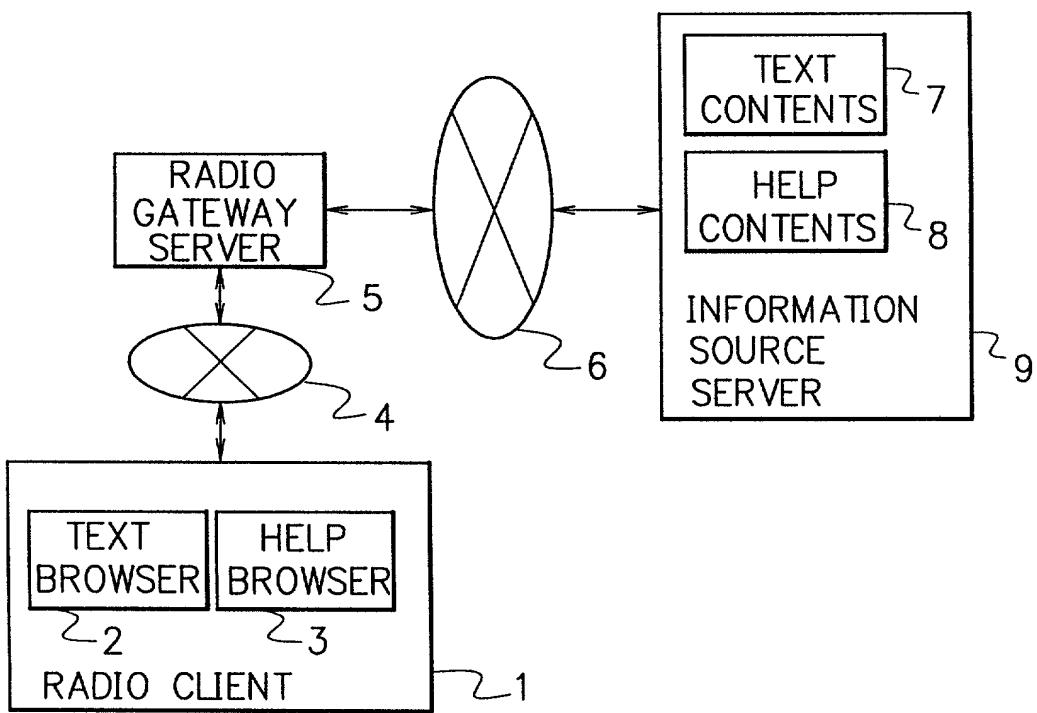
21. A storage medium storing a program for controlling a portable terminal as claimed in claim 20 wherein;

in said step of activating a text browser or a help browser, said help contents are outputted as text, voice, static images, moving images, 5 or any combination of such representation formats.

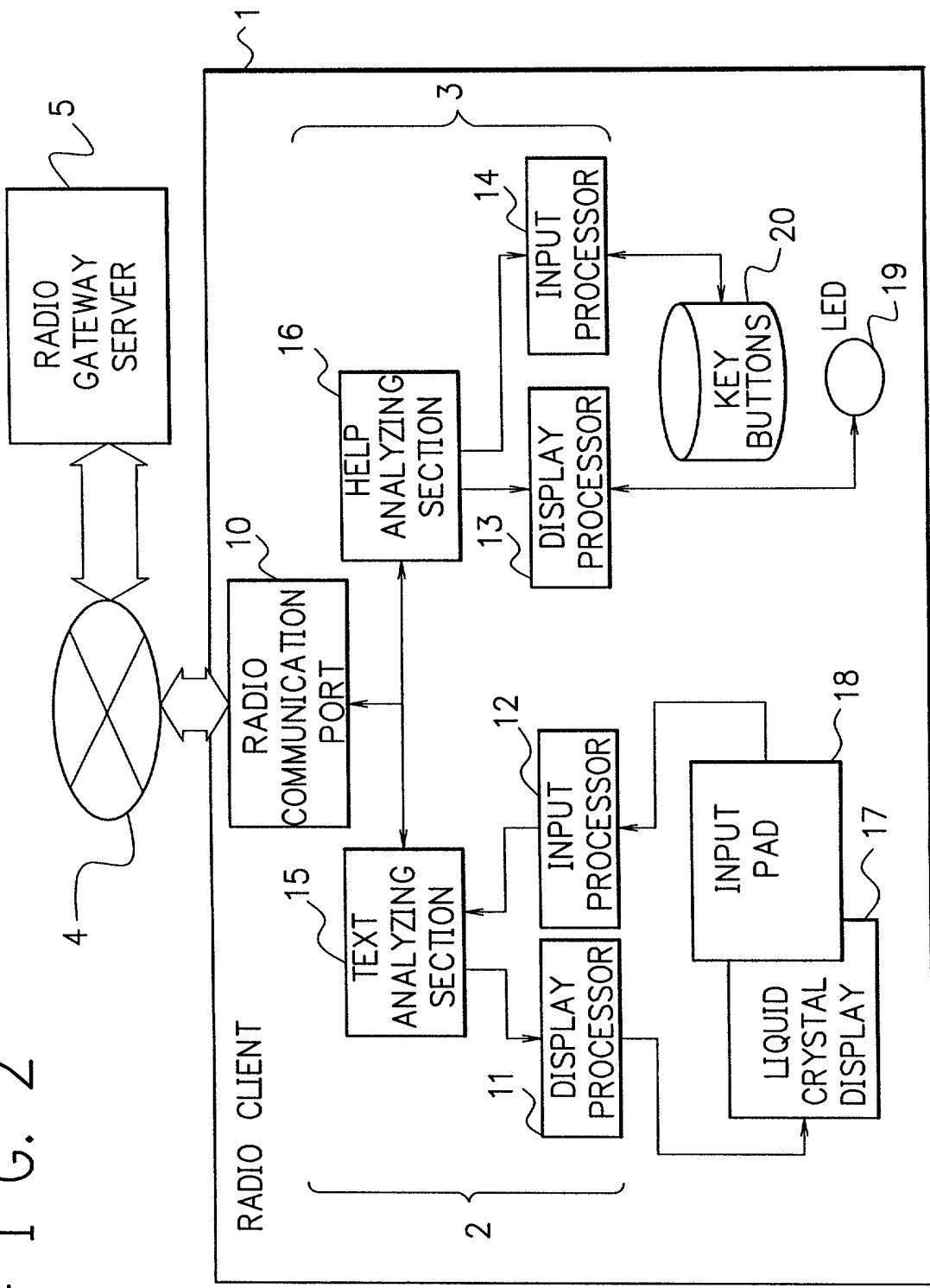
ABSTRACT OF THE DISCLOSURE

A portable terminal provided with a text browser for perusing text contents which are supposed to be displayed on a display of the portable terminal, and a help browser for perusing help contents showing methods 5 of utilizing the text contents. When a certain message is inputted from outside, it is determined whether the input message is a text message or a help message, according to which either the text browser or the help browser is activated. The help browser outputs the help contents through text, voice, static images, or moving images. The portable 10 terminal sets each of a plurality of switch keys to an effective state or an ineffective state in accordance with the contents of the help contents. In setting certain switch keys to effective states, LEDs, etc. provided corresponding to those switch keys are lighted. When the rest of the switch keys are set to ineffective states and any operation by those switch 15 keys are made ineffective, not only the operation by the user becomes simple, but also false operation can be prevented.

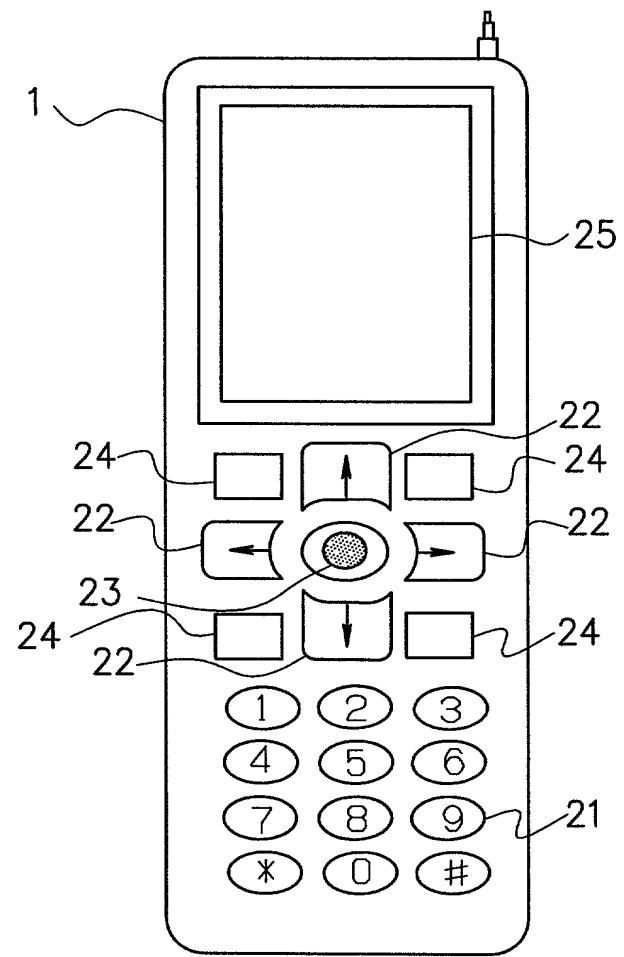
F I G. 1



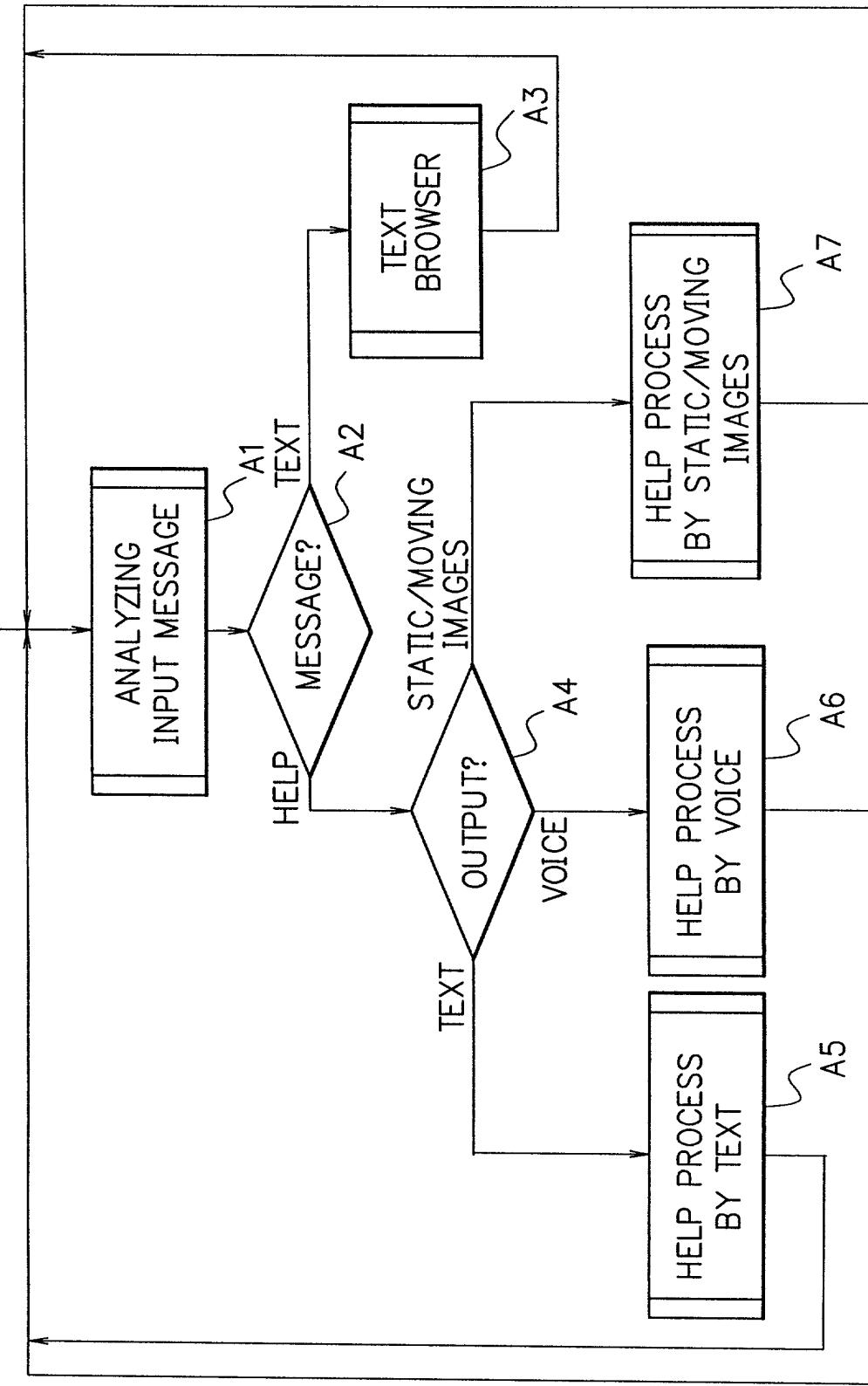
F I G. 2



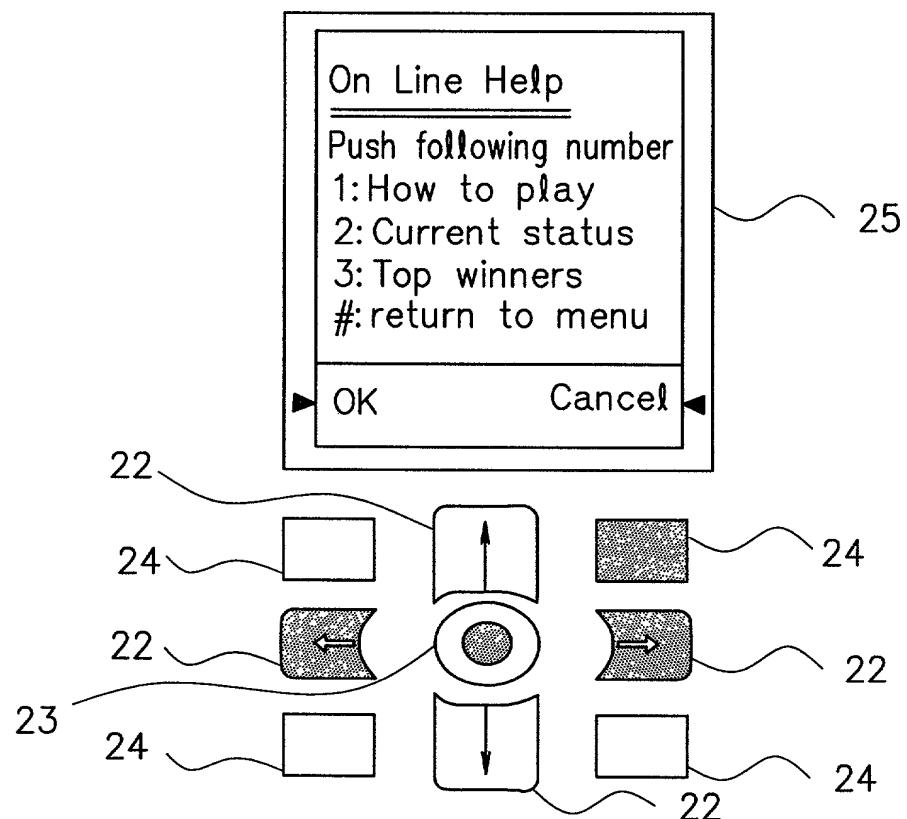
F I G. 3



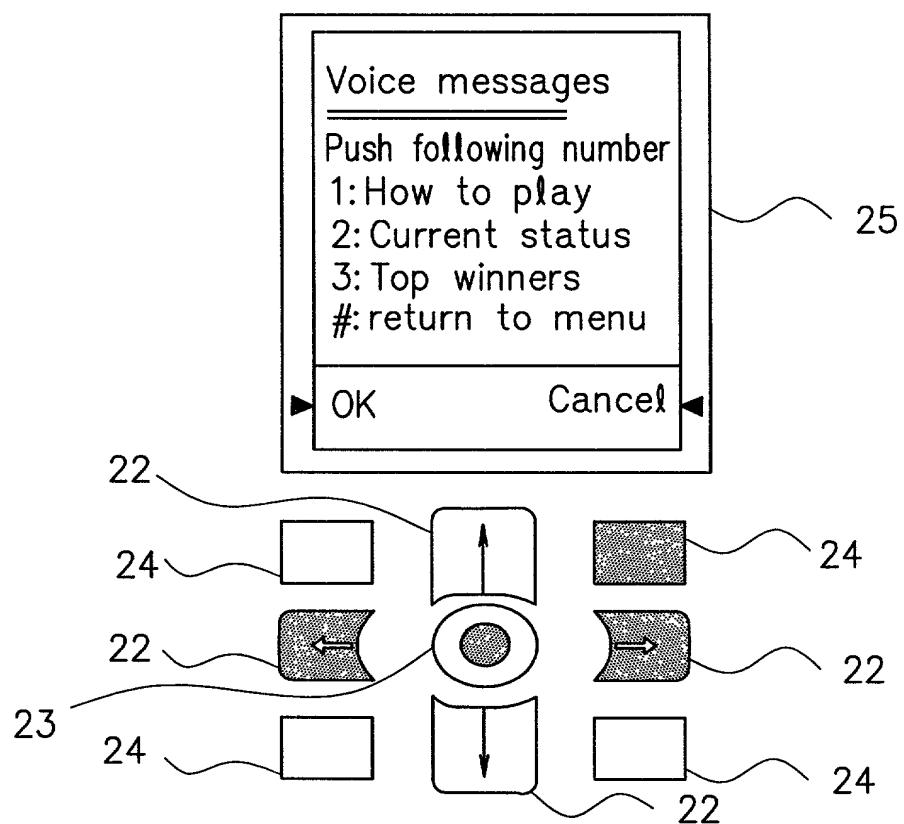
F I G. 4



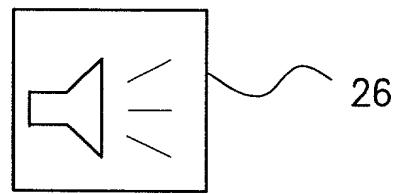
F I G. 5



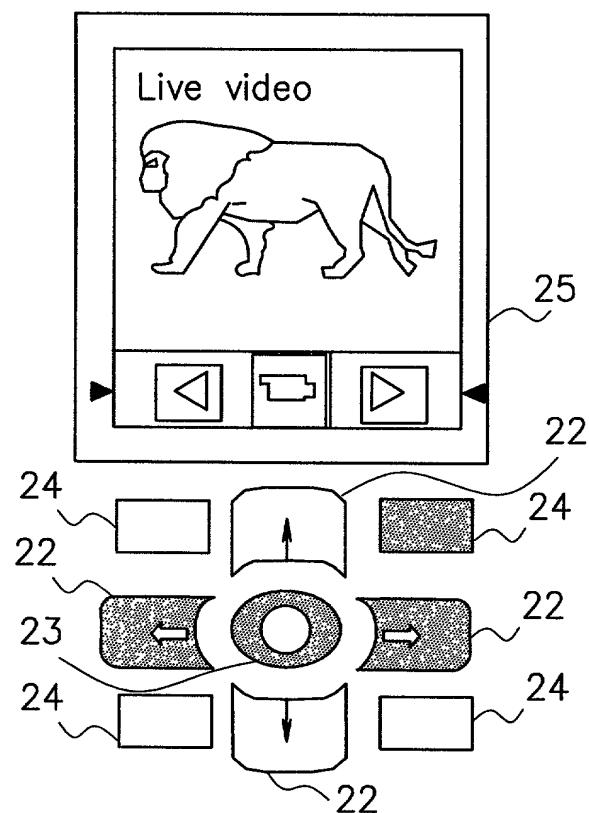
F I G. 6A



F I G. 6B



F I G. 7



Declaration and Power of Attorney for Patent Application

特許出願宣言書

Japanese Language Declaration

私は、下欄に氏名を記載した発明として、以下の通り宣言する：

私の住所、郵便の宛先および国籍は、下欄に氏名に続いて記載したとおりであり。

名称の発明に関し、請求の範囲に記載した特許を求める主題の本来の、最初にして唯一の発明者である（一人の氏名のみが下欄に記載されている場合）か、もしくは本来の、最初にして共同の発明者である（複数の氏名が下欄に記載されている場合）と信じ、

宣誓文書
提出用紙

その明細書を
(該当するほうに印を付す)

ここに添付する。

_____ 日に出願番号

第 _____ 号として提出し、

_____ 日に補正した。
(該当する場合)

私は、前記のとおり補正した請求の範囲を含む前記明細書の内容を検討し、理解したことを陳述する。

私は、連邦規則法典第37部第1章第56条(a)項に従い、本願の審査に所要の情報を開示すべき義務を有することを認める。

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

PORTABLE TERMINAL SYSTEM, PORTABLE TERMINAL,
METHOD OF CONTROLLING PORTABLE TERMINAL,
AND STORAGE MEDIUM STORING PROGRAM
FOR CONTROLLING PORTABLE TERMINAL

the specification of which
(check one)

is attached hereto.

was filed on _____ as

Application Serial No. _____

and was amended on _____
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

Japanese Language Declaration

私は、合衆国法典第35部第119条、第172条、又は第365条に基づく下記の外国特許出願又は発明者証出願の外国優先権利益を主張し、さらに優先権の主張に係わる基礎出願の出願日前の出願日を有する外国特許出願又は発明者証出願を以下に明記する：

Prior foreign applications

先の外国出願

I hereby claim foreign priority benefits under Title 35, United States Code §119, §172 or §365 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

			Priority claimed 優先権の主張	
(Number) (番 号)	(Country) (国 名)	(Day/Month/Year Filed) (出願の年月日)	<input checked="" type="checkbox"/> Yes あり	<input type="checkbox"/> No なし
284981/1999	Japan	6/10/1999	<input type="checkbox"/>	<input type="checkbox"/>
			Yes あり	No なし
			<input type="checkbox"/>	<input type="checkbox"/>
			Yes あり	No なし
			<input type="checkbox"/>	<input type="checkbox"/>
			Yes あり	No なし
			<input type="checkbox"/>	<input type="checkbox"/>
			Yes あり	No なし
			<input type="checkbox"/>	<input type="checkbox"/>
			Yes あり	No なし

私は、合衆国法典第35部第120条に基づく下記の合衆国特許出願の利益を主張し、本願の請求の範囲各項に記載の主題が合衆国法典第35部第112条第1項に規定の態様で先の合衆国出願に開示されていない限りにおいて、先の出願の出願日と本願の国内出願日又はPCT国際出願日の間に公表された連邦規則法典第37部第1章第56条(a)項に記載の所要の情報を開示すべき義務を有することを認める。

I hereby claim the benefit of Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose any material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(Application Serial No.) (出願番号)	(Filing Date) (出願日)	(現況) 特許済み、係属中、放棄済み	(Status) (patented, pending abandoned)
(Application Serial No.) (出願番号)	(Filing Date) (出願日)	(現況) 特許済み、係属中、放棄済み	(Status) (patented, pending abandoned)

私は、ここに自己の知識に基づいて行った陳述がすべて真実であり、自己の有する情報及び信ずるところに従って行った陳述が真実であると信じ、更に故意に虚偽の陳述等を行った場合、合衆国法典第18部第1001条により、罰金もしくは禁固に処せられるか、又はこれらの刑が併科され、又はかかる故意による虚偽の陳述が本願ないし本願に対して付与される特許の有効性を損なうことがあることを認識して、以上の陳述を行ったことを宣言する。

I hereby declare that all statements made herein of my own knowledge are true; and further that all statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Japanese Language Declaration

委任状： 私は、下記発明者として、以下の代理人をここに選任し、本願の手続きを遂行すること並びにこれに関する一切の行為を持許商標局に対して行うことを委任する。
 (代理人氏名及び登録番号を明記のこと)

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (*list name and registration number*)

I hereby appoint John H. Mion, Reg. No. 18,879; Donald E. Zinn, Reg. No. 19,046; Thomas J. Macpeak, Reg. No. 19,292; Robert J. Seas, Jr., Reg. No. 21,092; Darryl Mexic, Reg. No. 23,063; Robert V. Sloan, Reg. No. 22,775; Peter D. Olexy, Reg. No. 24,513; J. Frank Osha, Reg. No. 24,625; Waddell A. Biggart, Reg. No. 24,861; Robert G. McMorrow, Reg. No. 19,093; Louis Gubinsky, Reg. No. 24,835; Neil B. Siegel, Reg. No. 25,200; David J. Cushing, Reg. No. 28,703; John R. Inge, Reg. No. 26,916; Joseph J. Ruch, Jr., Reg. No. 26,577; Sheldon I. Landsman, Reg. No. 25,430; Richard C. Turner, Reg. No. 29,710; Howard L. Bernstein, Reg. No. 25,665; Alan J. Kasper, Reg. No. 25,426; Kenneth J. Burchfiel, Reg. No. 31,333; Gordon Kit, Reg. No. 30,764; Susan J. Mack, Reg. No. 30,951; Frank L. Bernstein, Reg. No. 31,484; Mark Boland, Reg. No. 32,197; William H. Mandir, Reg. No. 32,156; Scott M. Daniels, Reg. No. 32,562; Brian W. Hannon, Reg. No. 32,778; Abraham J. Rosner, Reg. No. 33,276; Bruce E. Kramer, Reg. No. 33,725; Paul F. Neils, Reg. No. 33,102; and Brett S. Sylvester, Reg. No. 32,765, my attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and request that all correspondence about the application be addressed to SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC, 2100 Pennsylvania Avenue, N.W., Washington, D.C. 20037-3202.

書類の送付先：

Send Correspondence to:

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唯一の又は第一の発明者の氏名	Full name of sole or first inventor HIDEHIRO MATSUMOTO		
同発明者の署名	日付	Inventor's signature 	Date September 22, 2000
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国籍	Citizenship Japanese		
郵便の宛先	Post office address c/o NEC Corporation, 7-1, Shiba 5-chome,		
	Minato-ku, Tokyo, Japan		
第二の共同発明者の氏名（該当する場合）	Full name of second joint inventor, if any		
同第二発明者の署名	日付	Second inventor's signature	Date
住所	Residence		
国籍	Citizenship		
郵便の宛先	Post office address		

(第三又はそれ以降の共同発明者に対しても同様な情報
 および署名を提供すること。)

(Supply similar information and signature for third and
 subsequent joint inventors.)